

SEQUENCE LISTING

<110> Meiji Seika Kaisha, Ltd.

<110> National Agriculture and Bio-oriented Research Organization

<120> Method for digesting proteins that highly resistant to denaturation and degradation

<130> MEJ-701

<150> JP 2002-309248

<151> 2002-10-24

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 825

<212> DNA

〈213〉 *Bacillus licheniformis*

<220>

<221> CDS

<222> (1) .. (825)

〈223〉

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Ala Gln Thr Val Pro Tyr Gly Ile Pro Leu Ile Lys Ala Asp Lys Val

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cag gcc caa ggt tat aaa ggg gca aat gtc aaa gtc ggt atc att gat 96

Gln Ala Gln Gly Tyr Lys Gly Ala Asn Val Lys Val Gly Ile Ile Asp

20 25 30

acg gga atc gct tcg tct cat aca gac ttg aag gta gtc ggc gga gca 144

Thr Gly Ile Ala Ser Ser His Thr Asp Leu Lys Val Val Gly Gly Ala

35 40 45

agc ttt gta tct ggt gaa agt tat aat acg gac ggt aac gga cac ggc 192

Ser Phe Val Ser Gly Glu Ser Tyr Asn Thr Asp Gly Asn Gly His Gly

50 55 60

aca cat gtt gcc gga aca gtg gcg gcg ctt gac aat aca aca ggc gtt	240
Thr His Val Ala Gly Thr Val Ala Ala Leu Asp Asn Thr Thr Gly Val	
65 70 75 80	
tta ggc gtt gca ccg aac gtc tcc ctc tac gcg att aag gtg ttg aat	288
Leu Gly Val Ala Pro Asn Val Ser Leu Tyr Ala Ile Lys Val Leu Asn	
85 90 95	
tca agc gga agc gga aca tac agc gca atc gtc agc gga att gag tgg	336
Ser Ser Gly Ser Gly Thr Tyr Ser Ala Ile Val Ser Gly Ile Glu Trp	
100 105 110	
gcc aca caa aac ggc ctg gat gtc atc aac atg agc ctc ggc gga cca	384
Ala Thr Gln Asn Gly Leu Asp Val Ile Asn Met Ser Leu Gly Gly Pro	
115 120 125	
tcc ggc tca act gcg ctg aaa cag gct gtg gat aaa gca tat gcc agc	432
Ser Gly Ser Thr Ala Leu Lys Gln Ala Val Asp Lys Ala Tyr Ala Ser	
130 135 140	
gga att gtc gta gtg gca gca gcg ggg aac agc gga tct tcc ggc agc	480
Gly Ile Val Val Val Ala Ala Ala Gly Asn Ser Gly Ser Ser Gly Ser	
145 150 155 160	
caa aac aca atc ggc tat ccg gca aaa tat gac tcc gtc atc gcc gtc	528
Gln Asn Thr Ile Gly Tyr Pro Ala Lys Tyr Asp Ser Val Ile Ala Val	
165 170 175	
ggt gcg gtt gac agc aac aaa aac aga gct tca ttc tcc agc gtc ggc	576
Gly Ala Val Asp Ser Asn Lys Asn Arg Ala Ser Phe Ser Ser Val Gly	
180 185 190	
tca gag ctt gaa gtc atg gct cct ggc gtc agc gta tac agc aca tat	624
Ser Glu Leu Glu Val Met Ala Pro Gly Val Ser Val Tyr Ser Thr Tyr	
195 200 205	
cct tct aac acg tac aca tca ttg aac gga act tca atg gct tog cct	672
Pro Ser Asn Thr Tyr Thr Ser Leu Asn Gly Thr Ser Met Ala Ser Pro	
210 215 220	
cat gta gcg gga gca gca gcc ttg atc ttg tcg aaa tac cct acg ctt	720
His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys Tyr Pro Thr Leu	
225 230 235 240	

tca gct tcc caa gtt cgc aac cgc ctc tca agc act gcg act aat ttg 768
 Ser Ala Ser Gln Val Arg Asn Arg Leu Ser Ser Thr Ala Thr Asn Leu
 245 250 255

gga gat tcc ttc tac tac ggc aaa ggg ctg atc aat gta gaa gct gcc 816
 Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Glu Ala Ala
 260 265 270

gct caa taa 825
 Ala Gln

<210> 2
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 <212> PRT
 <213> Bacillus licheniformis

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Gln Ala Gln Gly Tyr Lys Gly Ala Asn Val Lys Val Gly Ile Ile Asp
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Thr Gly Ile Ala Ser Ser His Thr Asp Leu Lys Val Val Gly Gly Ala
 35 40 45

Ser Phe Val Ser Gly Glu Ser Tyr Asn Thr Asp Gly Asn Gly His Gly
 50 55 60

Thr His Val Ala Gly Thr Val Ala Ala Leu Asp Asn Thr Thr Gly Val
 65 70 75 80

Leu Gly Val Ala Pro Asn Val Ser Leu Tyr Ala Ile Lys Val Leu Asn
 85 90 95

Ser Ser Gly Ser Gly Thr Tyr Ser Ala Ile Val Ser Gly Ile Glu Trp
 100 105 110

Ala Thr Gln Asn Gly Leu Asp Val Ile Asn Met Ser Leu Gly Gly Pro
 115 120 125

Ser Gly Ser Thr Ala Leu Lys Gln Ala Val Asp Lys Ala Tyr Ala Ser
 130 135 140

Gly Ile Val Val Val Ala Ala Ala Gly Asn Ser Gly Ser Ser Gly Ser
 145 150 155 160

Gln Asn Thr Ile Gly Tyr Pro Ala Lys Tyr Asp Ser Val Ile Ala Val
 165 170 175

Gly Ala Val Asp Ser Asn Lys Asn Arg Ala Ser Phe Ser Ser Val Gly
 180 185 190

Ser Glu Leu Glu Val Met Ala Pro Gly Val Ser Val Tyr Ser Thr Tyr
 195 200 205

Pro Ser Asn Thr Tyr Thr Ser Leu Asn Gly Thr Ser Met Ala Ser Pro
 210 215 220

His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys Tyr Pro Thr Leu
 225 230 235 240

Ser Ala Ser Gln Val Arg Asn Arg Leu Ser Ser Thr Ala Thr Asn Leu
 245 250 255

Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Glu Ala Ala
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Ala Gln

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer PDE-2

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer PDE-5

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